AMENDMENTS TO THE CLAIMS

1. (currently amended) A system for simulating a flexographic printing process based on user-controlled flexographic printing process parameters, the system comprising:

a set of data bases comprising a formal model of flexographic printing including flexographic printing process variables, ranges of ~~potential~~ the flexographic printing process variable values, potential interactions between the flexographic printing process variables, and effects of the potential interactions on a flexographic printing process output;

a simulator program comprising a dynamic model of the flexographic printing process; and

a user interface for providing user control of the simulator program.

2. (currently amended) The system of claim 1, wherein the user interface simulates a pressroom, including flexographic printing and control systems in the pressroom.

3. (currently amended) The system of claim 1, further comprising a copy desk for reproducing the flexographic printing process output.

4. (currently amended) The system of claim 3, wherein the copy desk comprises a set of software routines for performing image manipulations in order to reproduce printed effects on the flexographic printing process output, including changes in size of dots, dot density, and modifications to a substrate surface.

5. (currently amended) The system of claim 4, wherein the copy desk further comprises printer's diagnostic tools ~~such as~~ including at least one of a densitometer, a magnifier, and a spectrophotometer.

6. (currently amended) The system of claim 1, further comprising a trainer module for allowing a user to specify sets of materials to be used in the flexographic printing process.

7. (original) The system of claim 6, wherein the user can define production costs applied in the simulator.

8. (currently amended) The system of claim 6, wherein the user can create problem sets which become a curriculum of a flexographic printing training course.

9. (original) The system of claim 1, further comprising a copy generator module that allows users to enter images as simulated production jobs.

10. (currently amended) The system of claim 9, wherein the copy generator module ~~that~~ analyzes an image and pre-calculates how certain process faults would look if they were to appear on the image.

11. (currently amended) The system of claim 1, further comprising a diagnostic help system module for presenting the databases to help users troubleshoot flexographic print problems.

12. (currently amended) The system of claim 1, wherein the user interface lets a user verify and act on flexographic printing press and flexographic printing process parameters, the actions and verifications being communicated to the simulator.

13. (currently amended) A method of simulating a flexographic printing process based on user-controlled flexographic printing process parameters, the method comprising the steps of:

creating a database containing a formal model of [[a]] the flexographic printing process;

providing a computerized workstation for accessing the database, accepting input from a user by way of a user interface, and displaying data related to flexographic printing process simulation;

processing flexographic printing data entered on the workstation using ~~the formal~~ a dynamic flexographic printing model to generate flexographic printing simulation data; and

displaying the flexographic printing simulation data.

14. (original) The method of claim 13, further comprising the step of generating trace files of the process steps.

15. (original) The method of claim 13, further comprising the step of providing user-definable multimedia links to data outside the database.

16. (currently amended) The method of claim 13, wherein the user interface comprises ~~an~~ a flexographic printing press console.

17. (original) The method of claim 13, further comprising the step of providing image manipulation screens to the user, including manipulations to "dot" size, density, and substrate surface.

18. (currently amended) The method of claim 13, further comprising the step of simulating flexographic printer diagnostic tools, including densitometers, magnifiers, and spectrophotometers.

19. (currently amended) The method of claim 13, further comprising providing a trainer module for specifying sets of materials and reference values to be used for flexographic printing production runs.

20. (currently amended) The method of claim 13, further comprising calculating flexographic printing production costs.

21. (currently amended) The method of claim 13, further comprising providing a copy generator module into which an image is entered and the image is analyzed to anticipate potential flexographic printing production faults.

22. (currently amended) A system for simulating a flexographic printing operation comprising:

a database for storing parameters relating to flexographic printing operations;

a formal model for relating input data to the database;

a user input for interactively eliciting flexographic printing input data from a user;

a simulating system based on a dynamic flexographic printing model for producing simulated flexographic printing output data based on the formal flexographic printing model; and

a display for presenting the simulated flexographic printing output data to the user.